

AMENDMENTS TO THE CLAIMS

Please amend the claims 1 and 9, and add new claim 19, as shown below.

A complete listing of all pending claims is presented.

1. (Currently amended) A compound storage circuit that includes a volatile storage circuit and a nonvolatile storage circuit connected in parallel to each other and that is arranged such that information equal to storage information stored in the volatile storage circuit is stored into the nonvolatile storage circuit, the compound storage circuit comprising a determination circuit for comparing first storage information stored in the volatile storage circuit with second storage information that has already been stored in the nonvolatile storage circuit when the storage information stored in the volatile storage circuit is written into the nonvolatile storage circuit, wherein the first storage information is written into the nonvolatile storage circuit only when the first storage information is not equal to the second storage information, and

first and second circuit selection switches responsive to a power source separation signal to cause the volatile storage circuit to be independent from the other storage circuit.

2. (Original) The compound storage circuit according to Claim 1, wherein the determination circuit includes:

comparison determination means for comparing the first storage information with the second storage information; and

writing means for writing the first storage information into the nonvolatile storage circuit only when the first storage information is not equal to the second storage information.

3. (Original) The compound storage circuit according to Claim 1 or 2, wherein the nonvolatile storage circuit includes a magnetic tunnel junction element as storage means.

4. (Original) The compound storage circuit according to Claim 1, wherein:

when electric power supplied to the volatile storage circuit is reduced, the storage information stored in the volatile storage circuit is written into the nonvolatile storage circuit;
and

when power supply resumes after the electric power supplied is reduced, the storage information stored in the nonvolatile storage circuit is returned into the volatile storage circuit.

5. (Original) The compound storage circuit according to Claim 4, wherein each of the volatile storage circuit and the nonvolatile storage circuit includes power source supply means that operates when the electric power supplied is reduced.

6. (Original) The compound storage circuit according to Claim 4 or 5, wherein the nonvolatile storage circuit includes a magnetic tunnel junction element as storage means.

7. (Original) The compound storage circuit according to Claim 4 or 5, wherein the determination circuit includes:

comparison determination means for comparing the first storage information with the second storage information; and

writing means for writing the first storage information into the nonvolatile storage circuit only when the first storage information is not equal to the second storage information.

8. (Original) The compound storage circuit according to Claim 7, wherein the nonvolatile storage circuit includes a magnetic tunnel junction element as storage means.

9. (Currently amended) A semiconductor device including a compound storage circuit that includes a volatile storage circuit and a nonvolatile storage circuit connected in parallel to each other and that is arranged such that information equal to storage information stored in the volatile storage circuit is stored into the nonvolatile storage circuit, the semiconductor device comprising:

a determination circuit for comparing first storage information stored in the volatile storage circuit with second storage information that has already been stored in the nonvolatile storage circuit when the storage information stored in the volatile storage circuit is written into the nonvolatile storage circuit, wherein the first storage information is written into the nonvolatile storage circuit only when the first storage information is not equal to the second storage information; and

a first circuit selection switch and a second circuit selection switch, each responsive to a power source separation signal via a power source separation signal input line to cause the volatile storage circuit to be independent from other storage circuits..

10. (Original) The semiconductor device according to Claim 9, wherein the determination circuit includes:

comparison determination means for comparing the first storage information with the second storage information; and

writing means for writing the first storage information into the nonvolatile storage circuit only when the first storage information is not equal to the second storage information.

11. (Original) The semiconductor device according to Claim 9 or 10, wherein the nonvolatile storage circuit includes a magnetic tunnel junction element as storage means.

12. (Original) The semiconductor device according to Claim 11, wherein:

when electric power supplied to the volatile storage circuit is reduced, the storage information stored in the volatile storage circuit is written into the nonvolatile storage circuit; and

when power supply resumes after the electric power supplied is reduced, the storage information stored in the nonvolatile storage circuit is returned into the volatile storage circuit.

13. (Original) The semiconductor device according to Claim 12, wherein each of the volatile storage circuit and the nonvolatile storage circuit includes power source supply means that operates when the electric power supplied is reduced.

14. (Previously Presented) The semiconductor device according to Claim 12, wherein the nonvolatile storage circuit includes a magnetic tunnel junction element as storage means.

15. (Previously Presented) The semiconductor device according to Claim 12, wherein the determination circuit includes:

comparison determination means for comparing the first storage information with the second storage information; and

writing means for writing the first storage information into the nonvolatile storage circuit only when the first storage information is not equal to the second storage information.

16. (Original) The semiconductor device according to Claim 15, wherein the nonvolatile storage circuit includes a magnetic tunnel junction element as storage means.

17. (Previously Presented) The semiconductor device according to Claim 13, wherein the nonvolatile storage circuit includes a magnetic tunnel junction element as storage means.

18. (Previously Presented) The semiconductor device according to Claim 13, wherein the determination circuit includes:

comparison determination means for comparing the first storage information with the second storage information; and

writing means for writing the first storage information into the nonvolatile storage circuit only when the first storage information is not equal to the second storage information.

19. (New) A semiconductor device including a compound storage circuit that includes a volatile storage circuit and a nonvolatile storage circuit connected in parallel to each other and that is arranged such that information equal to storage information stored in the volatile storage circuit is stored into the nonvolatile storage circuit, the semiconductor device comprising:

a determination circuit for comparing first storage information stored in the volatile storage circuit with second storage information that has already been stored in the nonvolatile storage circuit when the storage information stored in the volatile storage circuit is written into the nonvolatile storage circuit, wherein the first storage information is written into the nonvolatile storage circuit only when the first storage information is not equal to the second storage information; and

a first circuit selection switch and a second circuit selection switch, each responsive to a power source separation signal via a power source separation signal input line to cause the volatile storage circuit to be independent from other storage circuits by cutting off a first conducting wire in circuit with said first circuit selection switch, and a second conducting wire in circuit with said second circuit selection switch, whereby information is prevented from being input to the volatile storage circuit and storage information stored in the volatile storage circuit 2 is inhibited from being changed after the power supply is turned off.